

City of Milwaukee Health Department

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Anthrax Fact Sheet for Milwaukee USPS Employees

What is anthrax?

Anthrax is an acute infectious disease caused by the spore-forming bacterium *Bacillus anthracis*. Anthrax most commonly occurs in wild and domestic animals such as cattle, sheep, goats, camels, antelopes, and other herbivores, but it can also occur in humans when they are exposed to infected animals or to tissue from infected animals. Because anthrax spores can float in the air for a while, they can be used as a bioterrorist weapon. In this case, the risk to a person depends on how and where the anthrax bacteria were released, and where you were relative to the release site.

What are the types, signs, and symptoms of anthrax infection?

There are three types of anthrax infection: cutaneous (skin), inhalation, and intestinal.

- **Cutaneous:** About 95% of all anthrax infections occur when the bacterium enters a cut or abrasion on the skin, such as when handling contaminated wool, hides, leather or hair products (especially goat hair) of infected animals. Skin infection begins as a raised itchy bump that resembles an insect bite but within 1-2 days develops into a blister and then a painless ulcer, usually 1-3 cm in diameter, with a characteristic black area in the center. Lymph glands in the adjacent area may swell. About 20% of untreated cases of cutaneous anthrax will result in death. Deaths are rare with appropriate antimicrobial therapy.
- Inhalation: This is the most likely form of anthrax in the case of bioterrorism. Although the initial symptoms of inhalation anthrax can resemble a common cold, don't assume that a person with cold symptoms has inhalation anthrax! With inhalation anthrax, the initial symptoms of sore throat, mild fever, muscle aches and general fatigue progress after several days to cough, chest discomfort, shortness of breath, and finally severe breathing problems and shock. Inhalation anthrax is usually fatal unless treated early with antibiotics.
- **Gastrointestinal:** The intestinal form of anthrax is usually caused by eating contaminated meat. This infection causes nausea, loss of appetite, vomiting, and fever, followed by abdominal pain, vomiting of blood, and severe or bloody diarrhea. Intestinal anthrax results in death in 25% to 60% of cases unless treated early with antibiotics.

How is anthrax treated, and how is it prevented after an exposure? Antibiotics are used to treat all three types of anthrax. Early identification and

Antibiotics are used to treat all three types of anthrax. Early identification and treatment are important. Antibiotics are also used to prevent anthrax from developing in people who have been exposed to anthrax, but are not yet sick. Ciprofloxacin, doxycycline, or similar antibiotics, taken for up to 60 days after the exposure, are usually recommended for this. An anthrax vaccine is also available on an experimental basis to help prevent anthrax infection after exposure.

Who should receive preventive antibiotics?

- 1. People who have been in an air space known to have been contaminated with aerosolized anthrax spores;
- 2. People who share the air space within a facility where others have developed inhalational anthrax;
- 3. People in a postal sorting facility who have been along the transit pathway of an envelope (or other source) containing anthrax bacteria that may have been aerosolized.

Preventive antibiotics are not recommended for others, such as for persons who routinely open or handle mail, either at home or at the workplace, even if that mail was processed at a contaminated postal facility.

Can other mail get contaminated with anthrax?

Contamination of other mail could occur during the processing, sorting, and delivery of mail when that mail comes in contact with an envelope, piece of equipment (e.g., an electronic sorting machine), or other surface that is contaminated with anthrax spores. In addition, airborne spores in a contaminated postal facility could play a role.

However, the risk for inhalational anthrax associated with exposure to such "cross-contaminated" mail it is very low, even for postal employees. For example, about 85 million pieces of mail were processed on the few days in 2001 after envelopes containing *Bacillus anthracis* (addressed to two U.S. Senators) passed through the New Jersey and District of Columbia sorting facilities until they were closed. Despite the fact that both of these facilities had evidence of widespread environmental contamination with anthrax spores and the fact that public health officials aggressively looked for anthrax cases, no new cases of anthrax were identified during that time.

Is anthrax spread from person to person?

Anthrax is not contagious from person to person. Direct person-to-person spread of anthrax from the skin or clothing of a contaminated individual is theoretically possible but is extremely unlikely, *especially if the person has been properly decontaminated prior to coming into contact with others.* There is no need to quarantine individuals suspected of being exposed to anthrax, and there is no need to immunize or treat contacts of persons ill with anthrax, such as household contacts, friends, or coworkers, unless they also were also exposed to the same source of anthrax bacteria.

How will my family members be protected if there is a BDS alarm? Individuals who are present in a work area 90 minutes prior to a BDS alarm will be assisted in following recommended decontamination procedures, such as washing / showering, and removing or discarding potentially contaminated clothing. These procedures are designed to eliminate the chance of accidentally transporting spores outside of the facility.

Who can I (or my doctor/clinic) call with other questions or concerns? Call your local health department (in the City of Milwaukee, call the Milwaukee Health Department at 414-286-3606)